

WeatherBond EPDM

No Dust Non-Reinforced Membrane



Overview

WeatherBond No Dust Non-Reinforced roofing membranes are available in the thicknesses of 45-mil (1.14 mm), 60-mil (1.52 mm) and 90-mil (2.29 mm). Ideal for new single-ply roof construction and re-roofing applications, WeatherBond No Dust Non-Reinforced membranes are available in widths up to 10' (3 m) and lengths up to 100' (30 m). These membranes are Fire Retardant (FR), which are specially formulated to inhibit spread of flame and meet or exceed code body testing criteria for the fire-retardant roofing membranes.

Features and Benefits

- Industry-leading weathering resistance (41,580 kJ/m² total radiant exposure without cracking or crazing)
- Pre-Applied Seam Tape Technology and full line of Peel & Stick flashing accessories greatly enhance workmanship quality
- Dark-colored EPDM is the smart choice in colder climates:
 - Reduces heating costs, which are generally 5 times greater than air conditioning costs
 - Reduces carbon footprint by lowering heating costs
 - Reduces safety hazard from snow and ice accumulation
 - Reduces hazardous conditions from snow and ice accumulation
 - Reduces potential condensation problems that can erode performance



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- Lifecycle Assessment using EPA's TRACI model analyzed EPDM, TPO, PVC and Modified-Bitumen
 - EPDM had the lowest Global Warming Potential
 - EPDM had the lowest Acid Rain impact
 - EPDM had the lowest contribution to smog
- Numerous studies and real-world experience confirm that WeatherBond EPDM's 465% elongation and weathering resistance result in superior hail damage resistance; UL 2218 Class 4 Rating
- EPDM is the most dimensionally stable heat-resistant membrane and stays flexible even in extremely cold conditions, down to -40°F (See Flexibility/Torsion DMA data)
- Extruded manufacturing technology results in seamless sheets that are UL and FM approved
- WeatherBond manufactures all the major components of a typical roofing system including membrane, flashings, tapes, adhesives, sealants, insulations and insulating cover boards

WeatherBond's Pre-Applied Seam Tape Technology

The Pre-Applied Seam Tape process results in a reliable seam with greater peel and shear strengths and no entrapped air bubbles. Consistent placement of the Pre-Applied Seam Tape maximizes the splice area and results in a high-quality seam. Pre-Applied Seam Tape has a shelf life of one year.

Installation

WeatherBond No Dust 45-mil (1.14 mm), 60-mil (1.52 mm) and 90-mil (2.29 mm) membranes are utilized primarily in Fully Adhered Roofing Systems.

For Design A: Fully Adhered Roofing System: Insulation is mechanically attached or adhered to the roof deck. The substrate and membrane are coated with WeatherBond EPDM Bonding Adhesive. The membrane is then rolled into place and broomed down. To complete seams between two adjoining membrane panels, apply primer to the splice area in conjunction with WeatherBond's Pre-Applied Seam Tape. As an alternative, WeatherBond's hand-applied P&S Seam Tape may be used.

For cold weather splicing below 40°F (5°C), these steps must be followed:

- Heat the primed area of the bottom membrane with a hot-air gun as the top sheet with Pre-Applied Seam Tape is applied and pressed into place.
- Prior to rolling the splice area with a 2"-wide steel hand roller, apply heat to the top side of the membrane with a hot-air gun. The heated surface should be hot to the touch. Be careful not to burn or blister the membrane.

REVIEW CURRENT WEATHERBOND INSTALLATION INSTRUCTIONS FOR SPECIFIC INSTALLATION REQUIREMENTS.

Precautions

1. Use proper stacking procedures to ensure sufficient stability of the materials.
2. Exercise caution when walking on a wet membrane. Membranes are slippery when wet.
3. Membranes with Pre-Applied Seam Tape should not be exposed to prolonged jobsite storage temperatures in excess of 90°F (32°C), otherwise the shelf life of the Seam Tape may be affected.
4. When membranes with Pre-Applied Seam Tape are used, shade the tape end of the rolls until ready to use in warm, sunny weather.

LEED® Information

Pre-consumer Recycled Content	5%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
Solar Reflectance Index	9

Typical Properties and Characteristics

Property	Test Method	SPEC. (PASS)	Typical
Tolerance on nominal thickness, %	ASTM D412	± 10	± 10
Weight, lbs/ft ² (kg/m ²)			
.045			0.29 (1.43)
.060			0.39 (1.91)
.090			0.59 (2.86)
Tensile Strength, min, psi (Mpa)	ASTM D412	1305 (9)	1600 (11.0)
Elongation, Ultimate, min, %	ASTM D412	300	465
Tear Strength, min, lbf/in (kN/m)	ASTM D624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min	Modified ASTM D816	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging*	ASTM D573		
Properties after 28 days @ 240°F (116°C)			
Tensile Strength, min, psi (MPa)	ASTM D412	1205 (8.3)	1450 (10.0)
Elongation, Ultimate, min, %	ASTM D412	200	280
Tear Strength, min, lbf/in (kN/m)	ASTM D624	125 (21.9)	215 (37.6)
Linear Dimensional Change, max, %	ASTM D1204	± 1.0	-0.5
Ozone Resistance*	ASTM D1149	No Cracks	No Cracks
Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain			
Brittleness Temp., max, °F (°C)*	ASTM D746	-49 (-45)	-49 (-45)
Resistance to Water Absorption*	ASTM D471	+8, -2	+2.0
After 7 days immersion @ 158°F (70°C) Change in mass, max, %			
Water Vapor Permeance*	ASTM E 96 (Proc. B or BW)	0.10	0.03
Max, perms			
Fungi Resistance	ASTM G1	N/A	0 (No Growth)
Flexibility/Torsion DMA	ASTM D5279-08	N/A	225 MPa @ -40°F
Resistance to Outdoor (Ultraviolet) Weathering*	ASTM G155	No Cracks	No Cracks
Xenon-Arc, total radiant exposure at 0.70 W/m ² irradiance, 80°C black panel temp.		No Cracking 7,560 kJ/m ² 3,000 hrs	No Cracking 41,580 kJ/m ² 16,500 hrs
At 0.35 W/m ² irradiance, 80°C black panel temperature		6,000 hrs	33,000 hrs

* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

Note: WeatherBond No Dust Non-Reinforced EPDM membrane meets or exceeds the minimum requirements set forth by ASTM D4637 for Type I non-reinforced EPDM single-ply roofing membranes.



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